

AMENDMENTS TO THE CLAIMS

All pending claims are reproduced below:

1. (Currently amended) Apparatus for empirically adjusting access to a database, said apparatus comprising:
 - coupled to the database, a database discovery module for determining database structure and authorized accesses to the database;
 - coupled to the database, a command monitoring module for monitoring actual accesses to the database; and
 - coupled to the database discovery module and to the command monitoring module, an analysis module for comparing actual accesses with authorized accesses and for adjusting authorized accesses taking into account results of the comparing to deny database access to operations by certain users on database tables and columns that were authorized but not observed by the command monitoring module.
2. (Original) Apparatus of claim 1 further comprising, coupled to the database discovery module and to the analysis module, a storage area for accumulating data generated by the command monitoring module.
3. (Original) Apparatus of claim 1 wherein the command monitoring module is a sniffer.
4. (Original) Apparatus of claim 1 wherein the database is a relational database accessed by a structured query language.
5. (Currently amended) A computer-implemented method for empirically adjusting access to a database, said method comprising the steps of:
 - discovering authorized accesses to the database;
 - observing actual accesses to the database;
 - comparing actual accesses with authorized accesses; and

adjusting authorized database accesses taking into account results of the comparing step to deny database access to operations by certain users on database tables and columns that were authorized but were not observed during the observing step.

6. (Original) The method of claim 5 further comprising the step of generating at least one third party report based upon observing actual accesses to the database.

7. (Canceled)

8. (Original) The method of claim 5 wherein the discovering step uncovers any:
tables of the database;
columns of the database;
authorized users of the database;
views of the database;
stored procedures of the database;
user-defined functions of the database; and
triggers of the database.

9. (Currently amended) The method of claim 5 wherein the adjusting step further comprises at least one of:
suggesting revised database access control settings to a database administrator;
automatically hardening the database for all times of day;
automatically hardening the database selectively based on time of day;
alerting a database administrator; and
continuing to monitor accesses to the database after conclusion of the observing step.

10. (Original) The method of claim 9 wherein the database is automatically hardened using standard SQL commands.

11. (Original) The method of claim 9 wherein the database is automatically hardened using database specific application programming interfaces.

12. (Original) The method of claim 5 wherein the observing step has a preselected duration.

13. (Original) The method of claim 5 wherein the observing step is performed until a preselected quantity of actual accesses have been observed.

14. (Currently amended) A computer-readable medium containing computer program instructions for empirically adjusting access to a database, said computer program instructions performing the steps of:

discovering authorized accesses to the database;

observing actual accesses to the database;

comparing actual accesses with authorized accesses; and

adjusting authorized database accesses taking into account results of the comparing
step to deny database access to operations by certain users on database tables
and columns that were authorized but were not observed during the observing
step.

15. (Original) The computer-readable medium of claim 14 further comprising the step of generating at least one third party report based upon observing actual accesses to the database.

16. (Canceled)

17. (Original) The computer-readable medium of claim 14 wherein the discovering step uncovers any:

tables of the database;

columns of the database;
authorized users of the database;
views of the database;
stored procedures of the database;
user-defined functions of the database; and
triggers of the database.

18. (Currently amended) The computer-readable medium of claim 14 wherein the adjusting step further comprises at least one of:
suggesting revised database access control settings to a database administrator;
automatically hardening the database for all times of day;
automatically hardening the database selectively based on time of day;
alerting a database administrator; and
continuing to monitor accesses to the database after conclusion of the observing step.
19. (Original) The computer-readable medium of claim 18 wherein the database is automatically hardened using standard SQL commands.
20. (Original) The computer-readable medium of claim 18 wherein the database is automatically hardened using database specific application programming interfaces.
21. (Original) The computer-readable medium of claim 14 wherein the observing step has a preselected duration.
22. (Original) The computer-readable medium of claim 14 wherein the observing step is performed until a preselected quantity of actual accesses have been observed.